

NATURAL RESOURCES CONSERVATION BOARD

Calgary, Alberta

CONSUMERS PAPER CORPORATION WASTE PAPER RECYCLING FACILITY IN THE TOWN OF REDCLIFF, ALBERTA - APPLICATION NO. 9202

Decision Report

1. INTRODUCTION

Consumers Paper Corporation (CPC or the Applicant) filed an application with the Natural Resources Conservation Board (NRCB) on December 14, 1992, for approval to construct a waste paper recycling facility in the Town of Redcliff. On January 25, 1993 the Applicant filed additional information in support of its Application. The Applicant proposes to construct the project at an abandoned glass recycling plant within a heavy industrial area located in the Town of Redcliff. The proposed facility is designed to utilize waste paper from Alberta and the neighboring region in the production of products such as bathroom tissue, paper towels, napkins and market pulp. Following receipt of the Applicant's additional information, the NRCB reviewed the Application for completeness and forwarded to the Applicant a request for supplemental information on February 2, 1993. On March 9, 1993 CPC responded to the Board's request for supplemental information thereby completing its Application to the Board.

The *NRCB Act* (the Act) requires that projects of the type applied for by CPC be reviewed by the Board regardless of whether an EIA has been required by the Minister of Environmental Protection. In the present case an EIA was not required; however, in accordance with the Act and the Rules of Practice of the Natural Resources Conservation Board, the Application included an assessment of social, economic and environmental impacts likely to result from construction and operation of the proposed facility.

In order to ensure public awareness of the proposed facility, the Board published a Preliminary Notice of Application in daily newspapers throughout the Province on December 17, 1992 and in the Brooks Bulletin on December 23, 1992 and again on January 13, 1993. On March 17, 1993, following completion of the Board's review of the Applicant's response to the Board's February 2, 1993 request for supplemental information, the Board published a Notice of Application calling for objections. This Notice stated that unless an objection was filed with the Board and the Applicant by a person having a bona fide interest in the proposed project on or before April 19, 1993 the Board might grant an approval in respect of the project without a public hearing.

In reviewing the background to this Application, the Board recognizes the ongoing involvement of various divisions within Alberta Environmental Protection, the Town of Redcliff, the City of Medicine Hat, the Municipal District of Cyprus No. 1, the South Eastern Alberta Health Unit, the City of Medicine Hat Advisory Committee, the Society of Grassland Naturalists and interested residents from Redcliff, Medicine Hat and the surrounding areas. The Board appreciates the degree to which these various parties have communicated prior to the formal decision making

process thereby increasing the efficiency of the public review process and assisting the Board in determining whether or not this Application is in the public interest.

2. NATURAL RESOURCES CONSERVATION BOARD JURISDICTION

The *NRCB Act* established a Board "...to provide for an impartial process to review projects that will or may affect the natural resources of Alberta in order to determine whether, in the Board's opinion, the projects are in the public interest, having regard to the social and economic effects of the projects and the effect of the projects on the environment". The types of projects that are subject to review are set out in section 4 of the Act and as further defined in section 1(e)(i) include a project "...to construct a facility to be used to manufacture pulp, paper, newsprint or recycled fibre". As previously noted, the Act requires a review of this type of project by the NRCB regardless of whether or not an EIA has been directed by Alberta Environmental Protection. Alberta Environmental Protection reviewed the contents of the Application and determined that an EIA was not required in this instance and the Application could therefore proceed through the normal government approval process. Section 9(3) of the Act stipulates that an approval granted by the Board "...does not dispense with the requirement to obtain any other licence, permit, approval or other authorization in respect of the reviewable project." Other approvals might include permits and licenses issued by Alberta Environmental Protection and approvals by municipalities under *the Planning Act* or municipal by-laws.

The Board notes that according to section 8(3) of the Act "Where the Board receives a written objection in respect of an application and the objection is submitted by a person who the Board considers is directly affected by the project, the Board shall hold a hearing in respect of the application unless it considers the objection to be vexatious or of little merit". The Board has identified the steps taken to advise parties of matters related to the Application as required in section 37 of the Act. No objections have been received by either the Board or the Applicant. Consequently, the Board does not believe that a public hearing is required in respect of this Application and is prepared to make its decision in the absence of such a hearing.

3. BASIS OF DECISION

As noted above, the Board is directed by the Act to review the Application by CPC to determine whether, in the Board's opinion, the proposed waste paper recycling facility is in the public interest, having regard to the social and economic effects of the project and its effect on the environment.

In considering the public interest the Board believes that even small adverse social and environmental effects might be unacceptable and beneficial economic effects might not result if: i) there is no justification for a project, ii) if a project is not economically viable, or iii) if an applicant does not have the technical or financial capability to carry out the work required. The Board believes that in reviewing an application it should first consider:

- \$ justification for the project;
- \$ selection of technology; and
- \$ viability of the project and capability of the applicant.

If it were to reach a positive conclusion in reviewing these matters, the Board would proceed to examine the potential effects of the project and measures that might be taken to avoid or mitigate any adverse effects. In doing so it would deal with:

- \$ effects of the proposed facility on the environment
- \$ socio-economic effects of the proposed facility.

The Board, in making its decision, believes that it should bring together its conclusions respecting the various effects that it expects that the project would have. Some effects would be beneficial and some would not. The Board must balance these effects and form an overall opinion as to whether or not the project is in the public interest.

4. JUSTIFICATION FOR THE PROJECT

The Applicant provided the Board with information about the existence of an adequate supply of the particular types of waste paper that it would consume and the demand for the tissue and recycled pulp that it would produce. CPC stated that the proposed facility could be profitable even at relatively low volumes of production such as those that could be sustained by waste paper from sources that have expressed a willingness to commit supplies of waste paper to CPC. The Applicant also provided evidence that other existing and proposed recycling plants in Alberta would not be likely to provide significant competition for the type of waste paper that it would process. The Board is convinced by the evidence referred to above that the project is justified. It also notes that provision of recycling capability is consistent with Alberta Government policy.

5. SELECTION OF TECHNOLOGY, VIABILITY OF THE PROPOSED FACILITY AND CAPABILITY OF APPLICANT

The Board notes that waste paper recycling facilities similar to that proposed are in operation in the mid-western United States. CPC reported that it proposes a higher standard of waste water treatment to be applied prior to discharge to a municipal treatment system than is applied at those comparable facilities. In addition, the Applicant undertook not to utilize chlorine in its process and, given the proposed sources of feedstock, concluded that hazardous heavy metals and PCBs would not be present in the treated effluent at concentrations that would exceed regulatory requirements. The Applicant also confirmed that concentrations of other regulated chemicals typically found in de-inking mill wastes would be reduced to below regulated levels in the effluent before leaving the facility.

The Applicant stated that the majority of de-inking mill emissions to the atmosphere would

be volatile organic compounds, chloroform and combustion products derived primarily from process equipment cleaning solvents. No chlorinated chemicals would be used. CPC proposes to use natural gas as a fuel for the mill process heat. CPC would not burn any solid fuels, such as wood, bark or coal, and therefore would not generate the emissions expected from such combustion.

The solid waste to be generated by CPC would include mill trash, de-inking sludges and waste activated sludge. CPC wrote that if the mill waste were to contain heavy metals, PCBs, dioxins, furans or other regulated chemicals, these chemicals would be at concentrations below regulated levels.

The Board has reviewed the Applicant's choice of equipment, its operating plans and its expected performance with respect to the release of contaminants to the environment. The Board concludes that CPC's selection of technology is appropriate. The Board has also reviewed the financial evidence provided by the Applicant, in particular that showing that the proposed plant can operate profitably at a reduced capacity and concluded that the project would be commercially viable if constructed and operated as proposed. Furthermore, the Board concluded that the Applicant has the technical and managerial capability to mount and operate a project such as that being proposed.

6. EFFECTS OF THE PROPOSED FACILITY ON THE ENVIRONMENT

In reviewing the evidence about the environmental effects of the proposed project, the Board examined all aspects. Water quality, water quantity, emissions to the atmosphere and waste disposal were given particular scrutiny. Evidence provided by the Applicant about the operation of comparable mills elsewhere was of considerable assistance to the Board. The Board, in its evaluation, also took into account the various undertakings made by the Applicant.

The Board notes that the proposed facility would not use chlorine in its process. The Board considers, however, that the feedstock to be used in the proposed project might contribute to the deleterious nature of its wastes. The Board is also aware that heavy metals and PCBs in waste printed materials have been a concern in recycling, but that current changes in the printing industry are ameliorating these concerns. The feedstock sample analyzed by the Applicant suggests that this would not be a major concern. However, since CPC does not have an operating record, and because little is known about the sources of waste paper to be received by CPC, the Board believes that it would be desirable for CPC to test all of its major sources of paper for chemicals of concern. The Board would therefore recommend that CPC, in consultation with Alberta Environmental Protection, test waste paper being received from major suppliers for the purpose of determining its characteristics with regard to heavy metals, PCBs and any other constituents that are determined to be of concern. The Board would also recommend that this be done at plant start-up and additionally for any new types of feedstock introduced in ongoing operation and that a record, available to Alberta Environmental Protection, be maintained.

The Board also considered the question of water availability for the proposed project during periods of low flow in the South Saskatchewan River. The Board notes that the withdrawal of water

from the river would require a permit from Alberta Environmental Protection which might limit withdrawals during such periods. The Board examined the hydrometric record and information provided by the Applicant about possible alternatives available to it when river flows fall below permissible withdrawal levels. The Board concluded that although the assurance of a continuous supply of water should be a priority for the Applicant, it could be achieved without threatening the viability of the project.

The Board has reviewed the information provided in the Application about possible effects on water quality and noted the data relevant to existing mills. The Board concludes that the properly treated liquid effluent from an operation such as the proposed project would have minimal environmental impact. However, it would be necessary to have some indication of the quality of the effluent which would be discharged from the proposed facility. The Board notes that the City of Medicine Hat intends to require the ongoing monitoring of biochemical oxygen demand (BOD), total suspended solids (TSS) and phosphorus in the effluent. The Board would require that: i) upon start-up of the facility, CPC test the effluent at the point of discharge from its on-site waste pre-treatment system to the City of Medicine Hat waste treatment system; and ii) the parameters for these tests would include heavy metals, dioxins and furans, temperature and toxicity to test organisms. The Board would also require that during later operation of the facility these tests be repeated as requested by Alberta Environmental Protection or the City of Medicine Hat and that data obtained from these tests be provided to Alberta Environmental Protection and the City of Medicine Hat. CPC would be required to make any changes to operating procedures required by those agencies as a result of their analysis of the above data.

It is the Board's understanding that the operation and maintenance of the piping system would become the responsibility of the City of Medicine Hat after the system's initial construction and consequently would be subject to the same Alberta Environmental Protection regulations as applied to the City's overall wastewater operations. It is the Board's determination on consideration of the probable composition of CPC effluent to the City, that this level of regulation is appropriate. However, the Board would require that the Applicant conclude an agreement with the City of Medicine Hat regarding the terms and conditions upon which the City would receive effluent originating from the proposed facility and that this agreement would be concluded in advance of discharge to the City's system. If CPC wished to implement an alternative method of discharging its treated effluent that did not involve further treatment by the City's treatment plant, the Board believes CPC would have to make application for variation of any approval granted as a result of the present Board review.

The Board notes the undertaking by the Applicant to repair and seal existing containment storage on-site to be used for emergency backup of the wastewater treatment system. It notes that repairs would be carried out in accordance with requirements to be established by Alberta Environmental Protection. The Board also notes the Applicant's undertaking to conduct on-site monitoring of groundwater according to a schedule developed with Alberta Environmental Protection.

The Board considered the evidence with respect to air quality and its potential effects on adjacent sites. It is the position of the Applicant that the proposed project would not have

unacceptable effects on air quality. The Board notes that the undertakings by the Applicant would: i) maintain adequate operational controls; ii) evaluate stack and site emissions following plant start-up; and iii) institute controls required by Alberta Environmental Protection. The Board would recommend that the Applicant ensure regular removal of sludge from the proposed plant site to the landfill to minimize potential odour problems to the community.

The Board reviewed the evidence pertaining to the disposal of solid waste from the proposed facility. It notes a letter to CPC from the South-Eastern Alberta Health Unit stating the acceptability of the waste sludge for disposal at the Cypress landfill. The Board also considered evidence respecting disposal of sludge material by land application and soil amendment or by incineration and its use in the production of secondary by-products. In this context, the Board reviewed the letter from the Town of Redcliff dealing with life of the landfill and the remedial measures suggested such as using the sludge for liner and cover material. Upon review of the evidence, the Board accepts the Applicant's submission that sludges from de-inking mills are generally comparable or superior in quality to municipal wastewater treatment sludges. In the Board's view such sludges engender relatively low levels of risk to the environment. The Board concurs with the Town that the life of the landfill should not be unnecessarily decreased. The Board would therefore recommend that the Applicant, in cooperation with Alberta Environmental Protection and the local authorities, review remedial options and disposal alternatives and implement those determined to be environmentally acceptable and cost effective.

The Board would recommend to the Applicant that, if the proposed project were to be approved, it explore the potential for a co-operative venture with the Alberta Research Council in the investigation of current de-inking technology, with a view to addressing possible process and waste disposal opportunities.

The Board notes the undertakings by the Applicant regarding a comprehensive occupational health and safety plan and an emergency response plan. Factors indicated by the Applicant include employee evacuation procedures, regular safety training seminars, public notification, rescue teams, fire fighting and medical issues as well as installation at the facility of sprinkler systems and fire alarms. The Board understands that the proposed facility would be required to operate according to WHMIS (Workplace Hazardous Material Information Systems), WCB (Workers Compensation Board) and OH&S (Occupational Health and Safety) regulations. Based on these considerations, the Board concludes that the proposed facility would provide a safe work environment.

The Board has considered the construction of the proposed project on an industrial plant site that formerly housed the Consumers Glass Plant at Redcliff, Alberta. The Board noted that this site is located in an existing designated heavy industrial area with developed infrastructure requirements such as electric power, natural gas, domestic water, storm water drainage, sanitary sewage, telephone, roads and railway spur lines. The Board has reviewed the documentation on the remediation of the site and accepts the appropriateness of this site for further use based on the completion of the remediation to the satisfaction of Alberta Environmental Protection.

The Board notes that the Applicant must comply with the permits and licences of the *Clean Water Act*, *Water Resources Act*, the *Clean Air Act*, the recently proclaimed *Alberta Environmental*

Protection and Enhancement Act, and with all other applicable regulations and standards of the Province of Alberta. Provided that these various conditions were met, and the operational characteristics of the proposed facility were confirmed through the post-startup monitoring and operational requirements as set forth in this Decision Report, the Board concludes that the environmental impact of the proposed waste paper recycling project on the immediate locale would almost certainly be minimal and that the proposed recycling option would provide environmental benefits on a provincial or larger scale.

7. SOCIO-ECONOMIC EFFECTS OF THE PROPOSED FACILITY

The Application indicates that, if approved by the NRCB, construction of the proposed facility would create about 126,000 man hours of employment with expenditures of approximately \$54 million. During the operational phase, it is estimated that the project would employ 143 people with an annual payroll of approximately \$7 million and gross sales of about \$71 million. A significant requirement described in the Application is the need for CPC to conclude a construction and operation agreement with the City of Medicine Hat to discharge waste water from their proposed facility into the City's waste treatment system for treatment prior to discharge into the South Saskatchewan River. According to an analysis provided to the Board by the City of Medicine Hat, costs associated with upgrading its waste treatment system to treat waste received from the proposed facility would amount to approximately \$600,000. It is estimated by the City that these costs would be recovered within two years through the receipt of utility charges to the City by CPC in excess of \$300,000 per year. Solid waste from the proposed project, including de-inking sludge, would be disposed of in a landfill operated by the Town of Redcliff. According to an analysis conducted by the Town of Redcliff, the project upon completion "...could reach approximately \$26 million in assessment dollars. At a potential mill rate of 20 mills, more or less, this could relate to approximately \$520,000 in tax revenue for the Town". The Board concludes that the net economic benefit of the project to the region would be substantial and to the Province significant.

CPC notes in its Application that most of the jobs created by the proposed project would be filled by local people. To accomplish this, CPC would conduct training programs at the mill and at local colleges and would employ work teams of locally recruited employees supervised by experienced paper workers. The Board believes that the creation of employment would be significant and beneficial but, because most of the jobs would be filled by local residents, it concludes that impacts on social services, housing and schools could be absorbed by the existing capacity. The Board is also of the opinion that the redevelopment of an abandoned industrial site constitutes a socio-economic benefit.

The proposed CPC mill facility would be located adjacent to the Trans-Canada Highway and the Trans-Continental Canadian Pacific Railway in the Town of Redcliff, Alberta. The raw material (waste paper) and the finished products would be transported by truck over provincial and state controlled highways in Western Canada and the Northwestern United States. At mill maturity (fifth year) the Applicant forecasts some 25 trucks per day. A smaller portion of the proposed mill output (parent rolls, wet lap pulp) might be delivered by rail. CPC stated that it would not transport any feedstock (waste paper) or mill output products of a dangerous nature.

CPC stated that within the Town existing road and rail infrastructure and utilities which service the facility would require only minimal structural changes. The solid waste by-products would be transported by truck to the Municipal District of Cypress No. 1 landfill site with a forecast of three trucks per day at mill maturity. The road routes were identified as being paved and following existing truck routes and the existing rail spur passes primarily through commercial and industrial property. Traffic control on the roads within the Town and the Municipal jurisdiction are subject to regulatory controls.

The Board is satisfied that the potential effects of the increased volume of road and rail traffic which would result from the proposed CPC mill would not be significant; adequate controls exist and future uncertainties would be adequately dealt with by the appropriate jurisdiction.

8. BOARD CONCLUSION RESPECTING THE PUBLIC INTEREST

The conclusions set out in this section of the report result from consideration of all of the information before the Board.

The Board concluded that the proposed project is justified and economically viable because of evidence that there is demand for the product and the plant could operate profitably at volumes of supply to which generators and gatherers of waste paper are willing to commit. The Board also concluded that CPC has the technical and managerial capability to mount and operate the proposed project.

On review of the proposed equipment and design of the facility, the Board concluded that the Applicant's choice of technology is appropriate. The Board determined that the construction and operation of the project as proposed would not be likely to result in unacceptable impacts on the environment provided that CPC reaches agreement with the City of Medicine Hat on treatment of effluent from the project at its wastewater treatment plant and provided that CPC puts in place a program for testing and reporting the composition of effluent as it leaves the project. The Board also saw fit to make a number of recommendations that would further lower the risk of environmental effects. These included monitoring the composition of waste paper feedstock, reviewing alternative methods of disposing of solid waste at the landfill site operated by the Town of Redcliff in order to lengthen its period of use, and exploring the potential for a cooperative venture to investigate de-inking technology. Finally the Board noted that the provision of recycling capability for the grades of waste paper that would be processed would be an environmental benefit to Alberta.

The Board concluded that the net economic benefit from the proposed project to the region would be substantial and to the Province would be significant. The Board also concluded that the social benefits arising from the creation of employment for local people would be greater than any adverse impacts on social services, housing and schools.

In balancing these conclusions, the Board finds that the net socio-economic benefits and the

environmental benefit arising from the provision of recycling capability outweigh the risk of minor adverse environmental effects and that the project is therefore in the public interest. The Board is prepared to approve the Application by CPC for a Waste Paper Recycling Facility in the Town of Redcliff, subject to certain conditions and to receipt of the necessary authorization from the Lieutenant-Governor-in-Council. The approval would be in the form shown in the attached draft.

In addition to those conditions contained in the draft approval, the Board expects that CPC, as Applicant and operator of the facility, will discharge all the commitments and undertakings given in the information it placed before the Board. The Board also believes that its recommendations will be of assistance to CPC and Alberta Environmental Protection in ensuring that the project operates in an environmentally acceptable manner. The Board notes that CPC must comply with all applicable regulations, standards and requirements of the Province and considers this to be a necessary condition of approval.

DATED at Calgary, Alberta on 27 April 1993.

NATURAL RESOURCES CONSERVATION BOARD

THIS IS A COPY OF THE ORIGINAL DECISION REPORT. THE ORIGINAL CONTAINS THE SIGNATURES OF THE BOARD MEMBERS

G.A. Yarranton
Acting Chairman

C.H. Weir
Board Member

D.M. Derworiz
Acting Board Member

THE PROVINCE OF ALBERTA
NATURAL RESOURCES CONSERVATION BOARD ACT
NATURAL RESOURCES CONSERVATION BOARD

IN THE MATTER of a project of
Consumers Paper Corporation.
for the construction of a
Waste Paper Recycling Facility
in the Town of Redcliff, Alberta.

APPROVAL NO. 4

WHEREAS the waste paper recycling facility proposed for the Town of Redcliff by Consumers Paper Corporation is a reviewable project under section 4(a) of the *Natural Resources Conservation Board Act*; and

WHEREAS the Natural Resources Conservation Board is prepared to grant the application by Consumers Paper Corporation for a waste paper recycling facility in the Town of Redcliff, Alberta subject to the conditions herein contained, and the Lieutenant Governor in Council has given his authorization, hereto attached.

THEREFORE, the Natural Resources Conservation Board, pursuant to the *Natural Resources Conservation Board Act*, being chapter N-5.5 of the Revised Statutes of Alberta, 1980, hereby orders as follows:

1. The project of Consumers Paper Corporation (hereinafter called "CPC") for a waste paper recycling facility in the Town of Redcliff as described in Application No. 9202 from CPC to the Board dated December 14, 1992, and descriptive material supporting the application, including undertakings of the Applicant, filed with the Board between December 14, 1992 to March 9, 1993, is approved, subject to the terms and conditions herein contained.
2. CPC shall conclude an agreement defining the terms and conditions upon which waste will be received by the City of Medicine Hat (hereinafter called "the City") for treatment in advance of the discharge of effluent by CPC for treatment by the City.
3. That upon start-up of the facility, CPC shall test effluent at the point of discharge from its on-site waste pre-treatment system to the City's waste treatment system for heavy metals, dioxins and furans, temperature and toxicity to test organisms. During later operation of the facility testing shall be repeated as requested by Alberta Environmental Protection or the City.

4. CPC shall comply with the permits and licences of the *Environmental Protection and Enhancement Act*, the *Water Resources Act*, the *Clean Water Act* and the *Clean Air Act* or any subsequent amendments thereof issued by Alberta Environmental Protection, and with all other applicable regulations and standards of the Province of Alberta.

MADE at the City of Calgary, in the Province of Alberta, this ___ day of _____, 1993.

NATURAL RESOURCES CONSERVATION BOARD